



Material Safety Data Sheet

1. Identification

a) Product Name	ACTIONZYME-ALK-CELL L
b) Synonyms:	None
c) Recommended Use:	Enzyme for Detergent industries
d) Uses advised against:	None
e) Data on Ingredients:	Protein

Company Information
Managed Care Eco Solutions
Unit 1 New Port Business, Quarts Street, Kya Sands Business Park, Kya Sands
Phone: +27 11 708 6626
Email: info@enzymes.eco, www.enzymes.eco
Managed Care Eco Solutions.

2. Hazards Identification

Classification

a) Skin Corrosion/irritation	Category 2
b) Serious Eye Damage/Eye Irritation	Category 2
c) Respiratory Sensitization	Category 1
d) Specific target organ toxicity (single exposure)	Category 3

Label Elements

Signal Word

Danger



Precautionary Statements:

1. Avoid breathing dust/mist/vapor/spray.
2. Use only outdoors or in a well – ventilated area.
3. Wear respiratory protection.
4. Avoid contact with Skin, Eyes and Clothing.
5. Wear protective gloves and safety glasses with side – shields.
6. Ensure regular cleaning of equipment, work area and clothing.
7. Do not ingest.

3. Composition and Information on Ingredients

a) Product Name:	ACTIVOZYME-ALK-CELL L
b) Product description:	Protein
c) Product Use:	Enzyme for detergent application
d) Active components	Cellulase enzyme
e) Hazardous component	None
f) Chemical Name:	Cellulase enzyme
g) CAS No.:	9012-54-8
h) E C No.:	3.2.1.4



4. First Aid Measurement

Inhalation:

In case of vapor inhaled, remove from contaminated area to fresh air. Report the situation. Seek medical attention if allergic response is exhibited.

Eye contact:

In Case of contact with eyes, flush eyes with low pressure water for at least 15 minutes. If irritation develops, seek medical attention.

Skin Contact:

In case of contact with skin, wash skin with soap and cold water. Remove contaminated clothing and wash.

Ingestion:

If swallowed, rinse mouth and throat thoroughly with tap water. Drink water.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media:

Standard procedure for chemicals fires. Foam. Water.

Non-suitable extinguishing media:

None.

Specific exposure hazards:

None.

Protective equipment:

No special requirements.



6. ACCIDENTAL RELEASE MEASURES

Personal precautions/ Emergency procedures:

Use only with adequate ventilation/personal protection. Avoid breathing dust or spray mist. Avoid formation of dust and aerosols. (See section 8).

Containment methods:

Prevent further leakage or spillage if safe to do so.

Cleanup procedures:

Contain and remove spilled product by mechanical means or with a vacuum cleaner equipped with a high efficiency filter. Avoid formation of aerosol.

7. HANDLING AND STORAGE

Safe handling:

Never handle liquid without appropriate personal protective equipment in accordance with Section 8. Avoid splashing and high pressure washing. Ensure good ventilation of the room when handling.

Storage:

Keep container tightly closed in a cool, dry, well-ventilated place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Appropriate engineering controls:

Adequate ventilation.

Eye/Face protection:

Wear protective glasses or eye shield.



Skin protection:

Impermeable gloves recommended.

Respiratory protection:

Use NIOSH approved respiratory protection such as full-face mask.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Brown Liquid.
Odor:	Characteristic enzyme odor.
Odor Threshold	Not available
Ph	Not available
Melting point/freezing point	Not available
Initial boiling point and boiling rage	Not available
Flash point	Not available
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Upper/ lower flammability or explosive limits	Not available
Vapor Pressure	Not available
Vapor Density	Not available
Relative Density	Not available
Solubility	Miscible
Partition coefficient: n-octenol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available

10. STABILITY AND REACTIVITY

Reactivity:

Not available.

Chemical stability:

Stable under normal storage conditions.

Hazardous to reactions:

Not available.

Conditions to avoid:

Not available.

Incompatible materials:

Not available.

Hazardous decomposition products:

Not available.

11. TOXICOLOGICAL INFORMATION

Routes of exposure:

Eye contact, skin contact, ingestion, vapor inhalation.

Symptoms:

Immediate:

Can cause irritation to the eyes, skin, mucus membranes, and the upper respiratory tract.

Delayed:

Vapor inhalation exposure may lead to allergic sensitization based on exposure level, duration, and susceptibility.

Acute toxicity: Not available.

Eye irritation: May cause minor irritation.

Skin irritation: May cause minor irritation.

Respiratory irritation: May cause minor irritation.

Sensitization towards product:

Inhalation of vapor may cause allergic respiratory reactions, including asthma, in susceptible individuals on repeated exposure.

Germ cell mutagenicity: Not available

Reproductive toxicity: Not expected to produce reproductive toxicity

Carcinogenicity: Not classified as a carcinogen by IARC, OSHA, or NTP

12. ECOLOGICAL INFORMATION

Ecotoxicity: Not available.

Persistence and degradability: Product is readily Biodegradable.

Bio accumulative potential: Not available.

Mobility in soil: Not available.

Other adverse effects: Not available.

13. DISPOSAL CONSIDERATIONS

No Special disposal method required, except that in accordance with all application federal, state, and local regulations.

UN Number: Not Classified.

UN Proper Shipping Name: Not Classified.

Transportation Hazard Class: Not Classified.

Packing Group: Not classified.

Transport Environmental Hazard: Not classified.

Transport Special Precautions: Not Classified.

MARPOL: Not classified.

15. REGULATORY INFORMATION

All components of this product are listed or exempt from listing on the TSCA Inventory.

16. OTHER INFORMATION

Prepared by	QA/QC Department, MCES
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